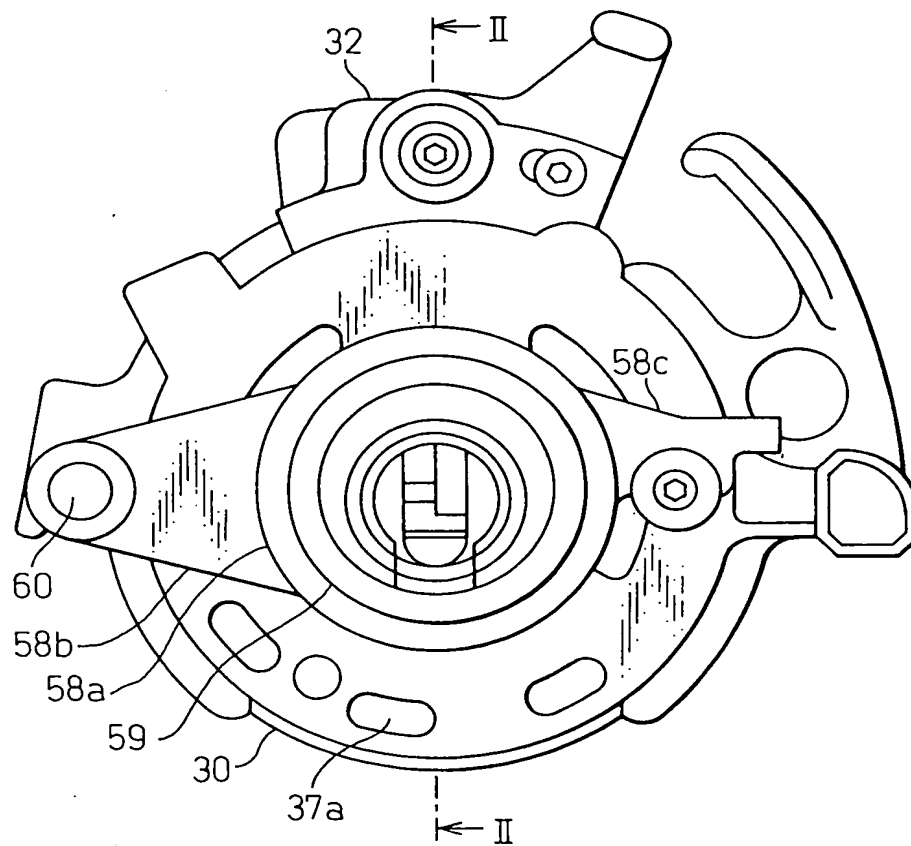


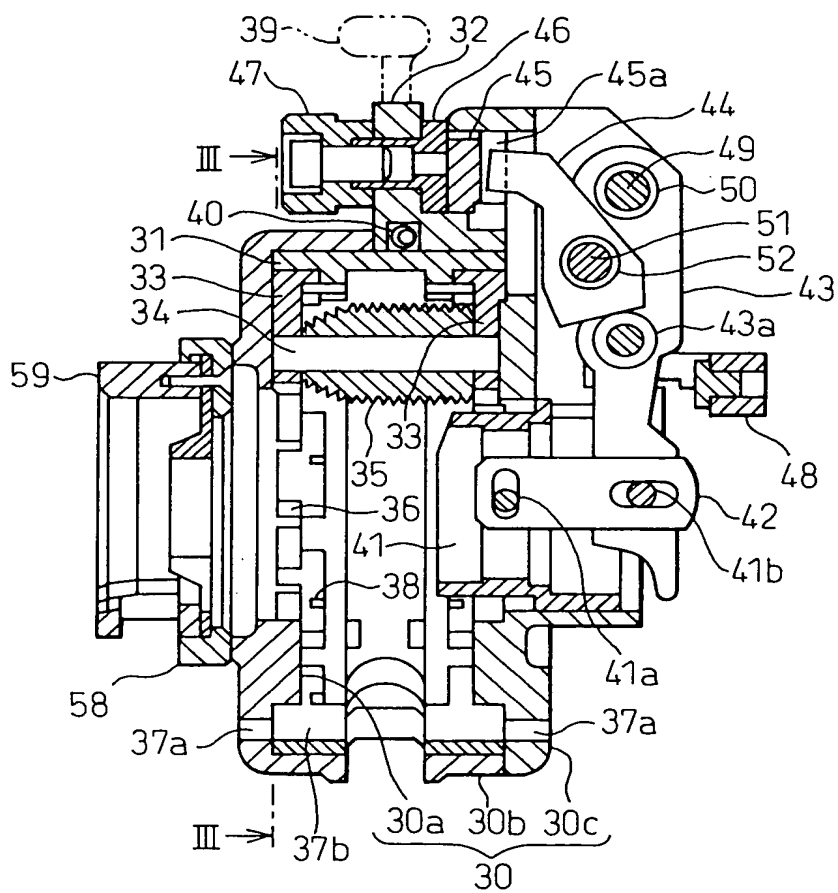
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Fig. 1



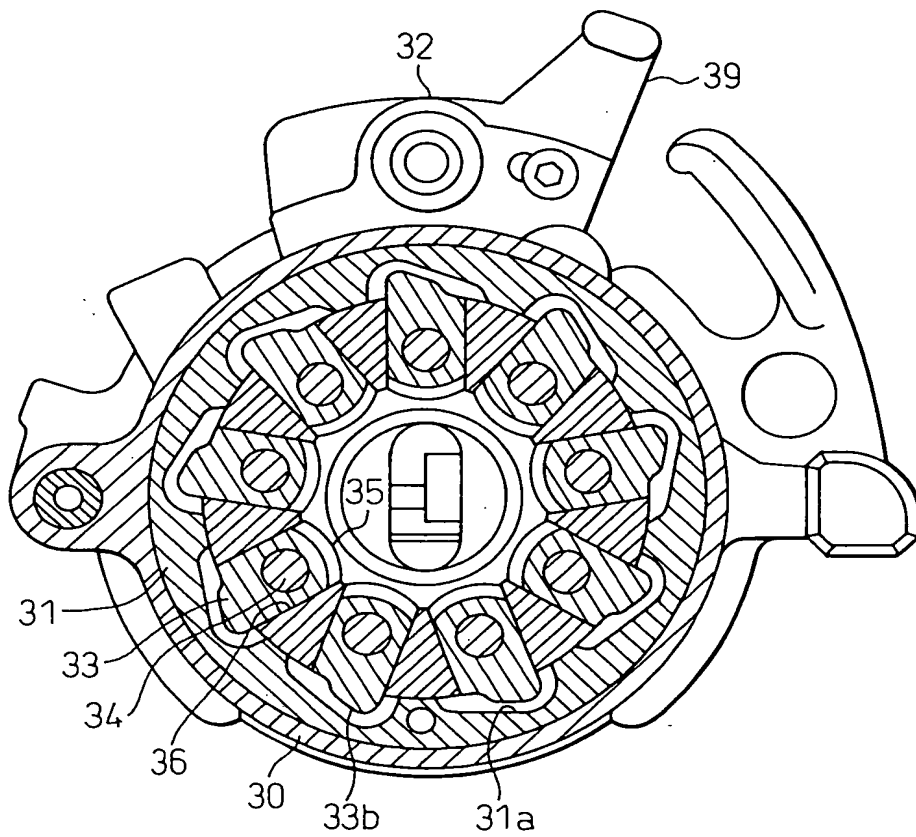
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Fig. 2



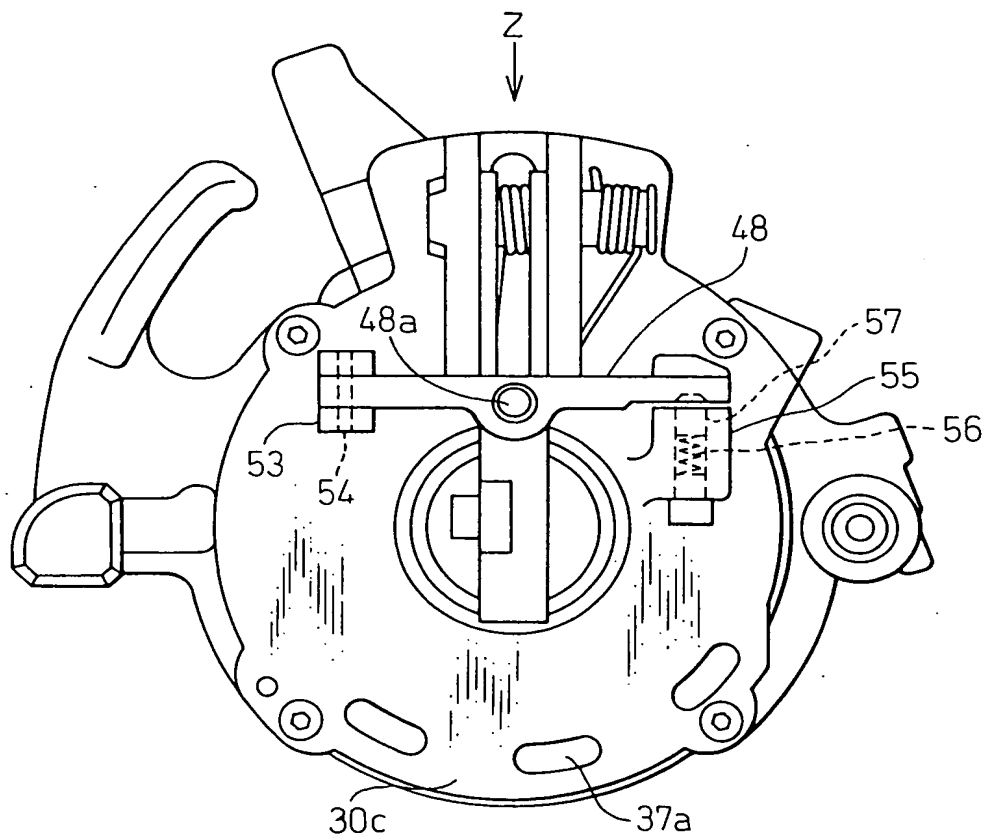
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Fig.3



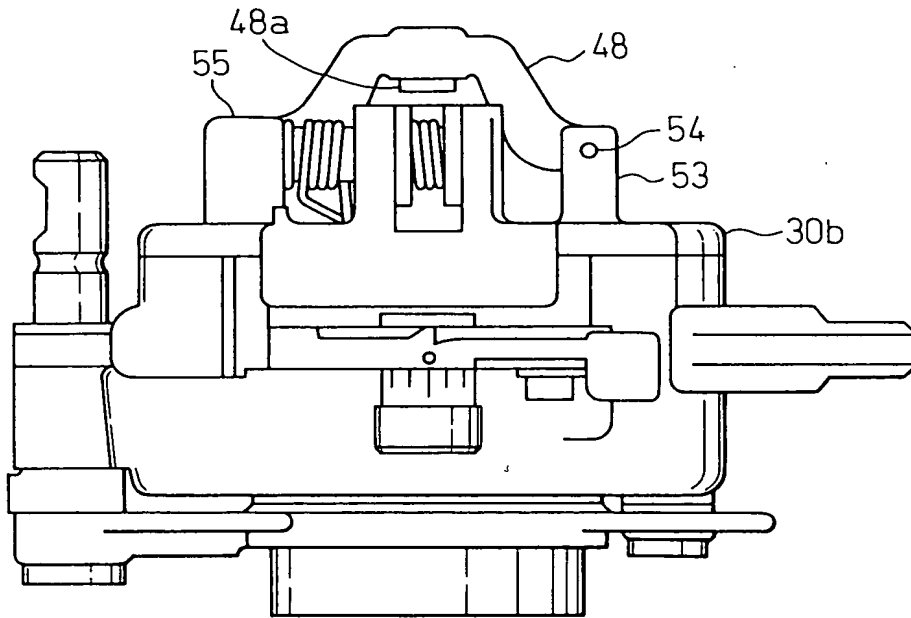
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Fig.4



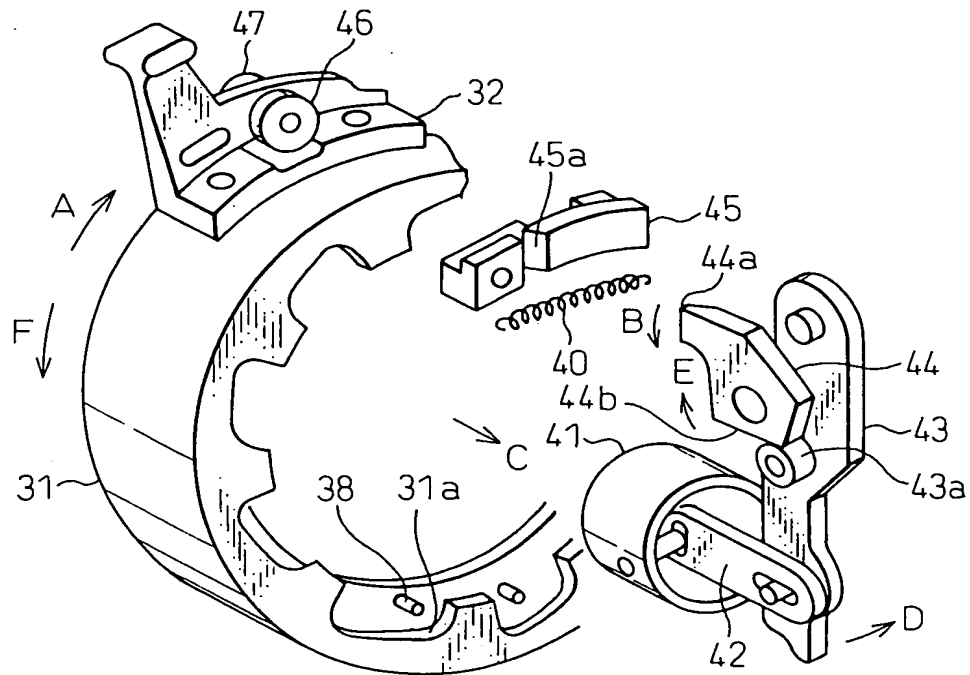
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Fig.5



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Fig.6



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Fig. 7a

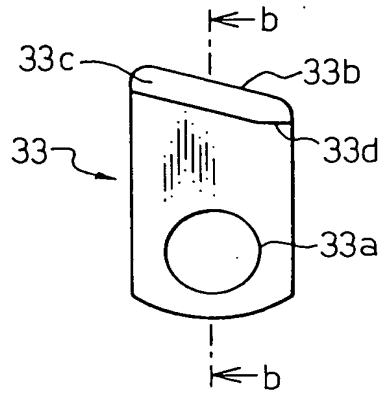


Fig. 7b

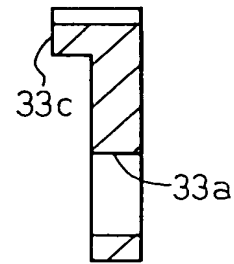


Fig. 8a

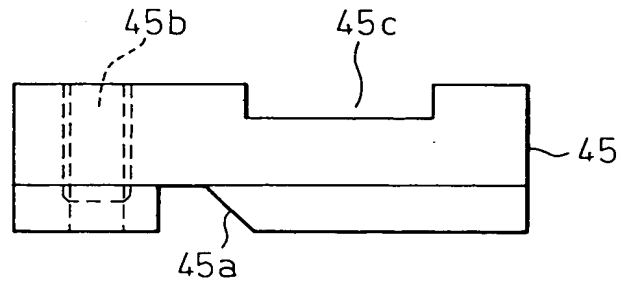
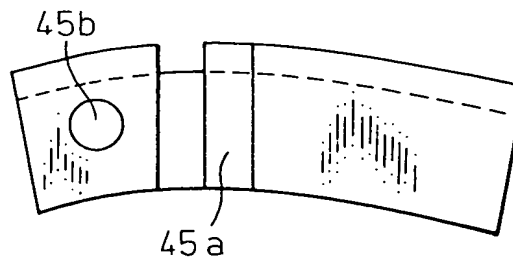


Fig. 8b



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Fig.9a

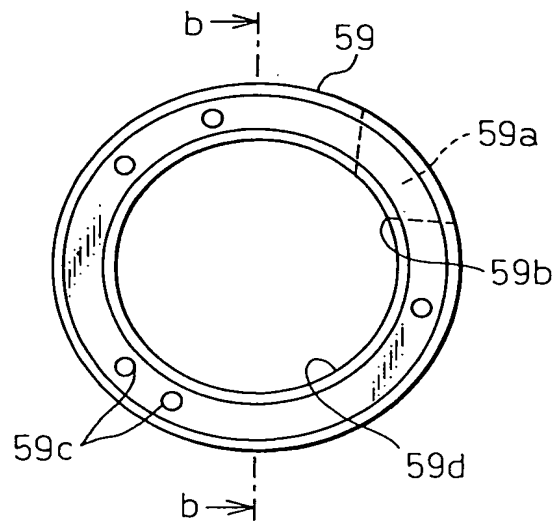
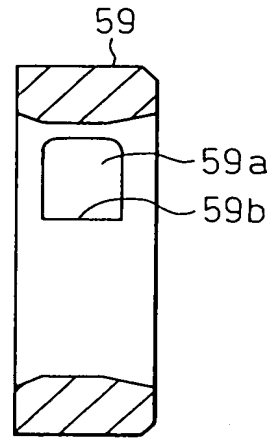
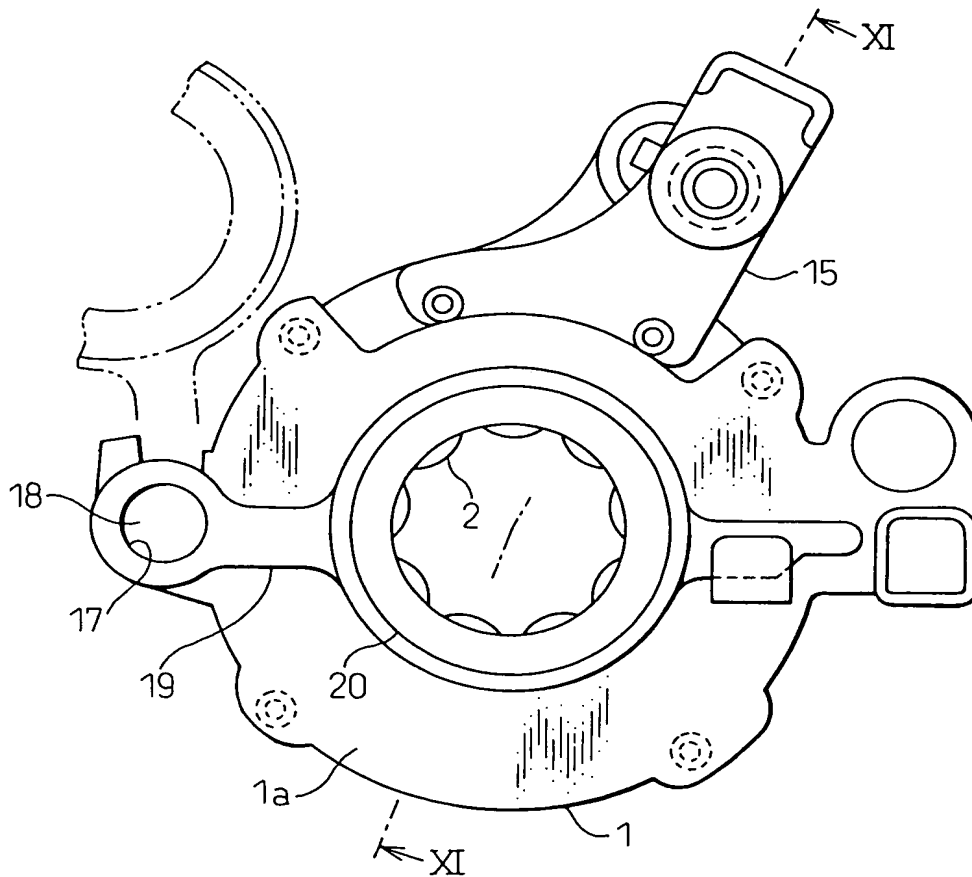


Fig.9b



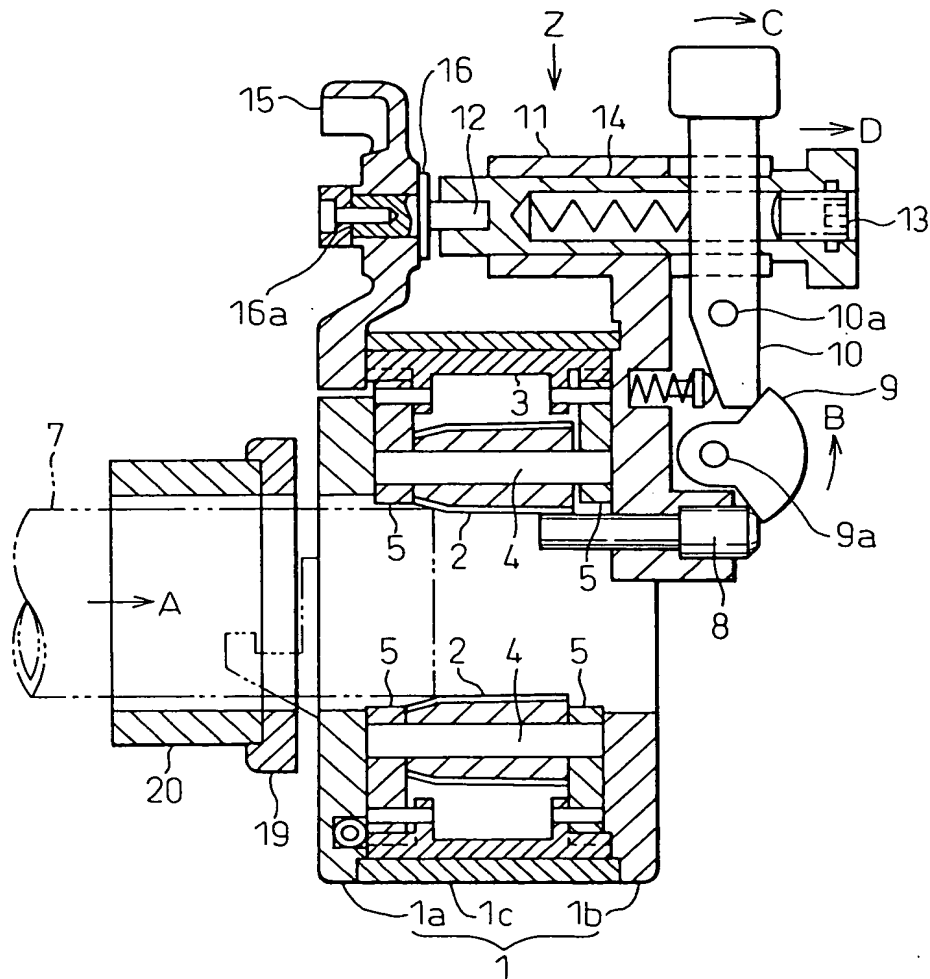
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Fig.10
PRIOR ART



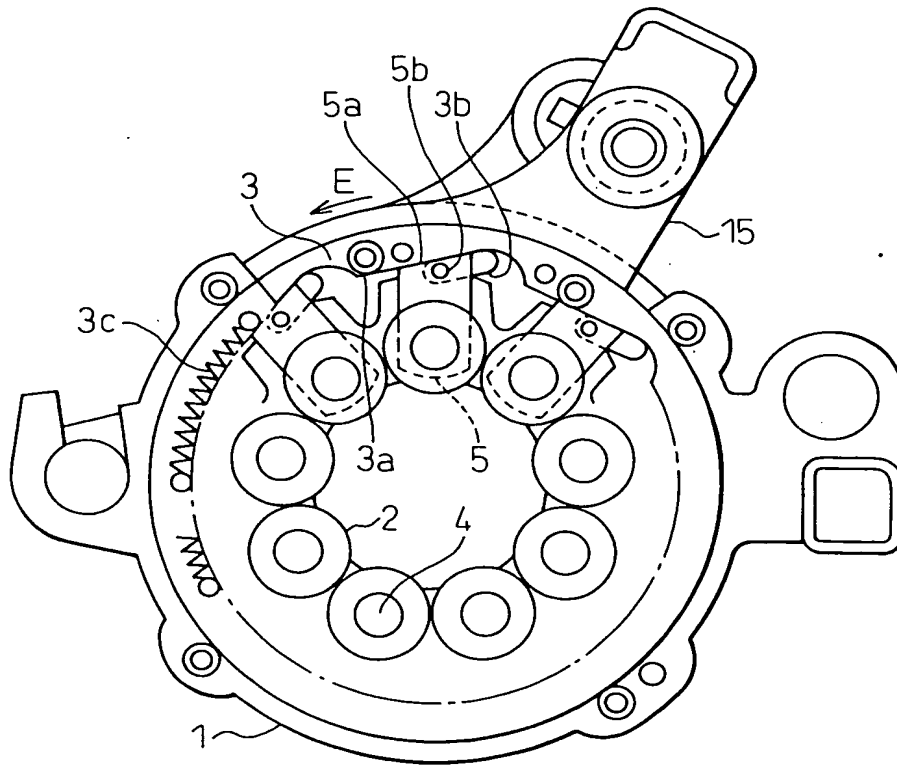
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Fig.11
PRIOR ART



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Fig.12
PRIOR ART



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List of Reference Number

30...housing
30a...front closure
30b...intermediate part
30c...rear closure
31...cam ring
31a...cam oblique surface
32...setting block
33...shaft bearing plate
33a...shaft bearing hole
33b...oblique surface of shaft bearing plate
33c...projection
33d...surface in parallel with width direction
34...roller shaft
35...thread rolling roller
36...guide groove
37a,37b...foreign matter discharge hole
38,41a...pin
39...lever
40,50,52,56...spring
41...abutment member
41b...bolt
42...link
43...first lever
43a...roller
44...second lever
44a...front end of second lever
44b...lower surface of second lever
45...cam member
45a...cam oblique surface
45b...threaded hole
45c...groove
46...eccentric cam
47...thread diameter adjusting knob
48...buffer arm
48a...elastic member
49,51...support shaft

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53,55...boss

54...hinge pin

57...shutter pin

58...scraper holder

58a...holder part

58b,58c...arm

59...scraper

59a...angle hole

59b...cutting blade

59c...threaded hole

59d...inner diameter part for guiding to-be-rolled pipe

60...shaft